

Amendment and Response

Applicant: Shai Lior

Serial No.: 10/575,767

Filed: April 12, 2006

Docket No.: 200310120-3

Title: INK HEATING ON BLANKET BY CONTACT OF A ROTATING HOT SURFACE

IN THE CLAIMS

Please cancel claims 4, 5, 12, 13, 15, 16, and 18 without prejudice.

Please add claims 19-26.

Please amend claims 1, 2, 6, 7, 8, 10, 11, 14, and 17 as follows:

1. (Currently Amended) A method of heating toner of an image on a moving surface of an intermediate transfer member in order to transfer the image to a printing medium of a printing system comprising:

providing a toner image on an intermediate transfer member; and

placing a surface of a heated member in contact with said toner image on said intermediate transfer member, and heating the toner image by the heated member prior to transferring the toner image to a further surface from the intermediate transfer member,

wherein heating of the toner image by the contacting heated member is in addition to heating by a heater, internal to said intermediate transfer member,

wherein the heated member comprises a belt supported by at least two spaced wheels with a segment of the belt supported and extended between the spaced wheels providing surface contact with the intermediate transfer member.

2. (Currently Amended) A method according to claim 1 and ~~including~~ including:
moving the surface of the heated member together with ~~the moving a~~ surface of the intermediate transfer member, so that the surface of the heated member ~~surface~~ comes into contact with the surface of the intermediate transfer member ~~surface~~.

3. (Original) A method according to claim 2 and including:
removing the surface of the heated member from contact with the intermediate transfer member.

4. (Cancelled)

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5. (Cancelled)

6. (Currently Amended) A method according to claim 1 and including removing excess carrier liquid from the toner image prior to ~~[[its]]~~ transfer of the toner image to the intermediate transfer member.

7. (Currently Amended) ~~A method according to claim 1~~ A method of heating toner of an image on a moving surface of an intermediate transfer member in order to transfer the image to a printing medium of a printing system comprising:

providing a toner image on an intermediate transfer member; and

placing a surface of a heated member in contact with said image on said intermediate transfer member, prior to transferring the toner image to a further surface from the intermediate transfer member,

wherein heating of the image by the contacting heated member is in addition to heating by a heater, internal to said intermediate transfer member,

wherein said heated member supplies at least 50% of the heat for heating the toner of the image on said intermediate transfer member.

8. (Currently Amended) ~~A method according to claim 1~~ A method of heating toner of an image on a moving surface of an intermediate transfer member in order to transfer the image to a printing medium of a printing system comprising:

providing a toner image on an intermediate transfer member; and

placing a surface of a heated member in contact with said image on said intermediate transfer member, prior to transferring the toner image to a further surface from the intermediate transfer member,

wherein heating of the image by the contacting heated member is in addition to heating by a heater, internal to said intermediate transfer member,

wherein said heated member supplies at least 70% of the heat for heating the toner of the image on said intermediate transfer member.

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9. (Original) A method according to claim 1 wherein the internal heater is a radiant heater that heats the intermediate transfer member by heat radiated and air conducted from the heater.
10. (Currently Amended) ~~A method according to claim 1~~ A method of heating toner of an image on a moving surface of an intermediate transfer member in order to transfer the image to a printing medium of a printing system comprising:
providing a toner image on an intermediate transfer member; and
placing a surface of a heated member in contact with said image on said intermediate transfer member, prior to transferring the toner image to a further surface from the intermediate transfer member,
wherein heating of the image by the contacting heated member is in addition to heating by a heater, internal to said intermediate transfer member, and
including transferring the heated image from the intermediate transfer member wherein heating the toner image to a temperature suitable for transfer to a final substrate uses less than 50% of the energy necessary to heat said toner to said suitable temperature by a heater internal to the intermediate transfer member alone.
11. (Currently Amended) A method according to claim 1 wherein the toner image is transferred from the intermediate transfer member, under pressure.
12. (Cancelled)
13. (Cancelled)
14. (Currently Amended) A system for heating a toner image for printing on a print media comprising:
an intermediate transfer member, adapted to receive an image at a first position and to transfer the received image at a second position; and

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a heating member contacting said image and said intermediate transfer member and heating the image as [[it]] said intermediate transfer member passes between said first and second positions,

wherein heating of the image by the ~~contacting heated~~ heating member is in addition to heating by a heater, internal to said intermediate transfer member,

wherein the heating member comprises a heated moving belt supported by at least two spaced wheels, wherein a segment of the belt supported and extended between the spaced wheels provides surface contact with the intermediate transfer member.

15. (Cancelled)

16. (Cancelled)

17. (Currently Amended) A system according to claim 14 and including means for removing excess carrier liquid from the image prior to [[its]] transfer of the image to the intermediate transfer member.

18. (Cancelled)

19. (New) A method according to claim 1 wherein the belt of the heated member is heated by at least one heating unit positioned in at least one of the at least two spaced wheels.

20. (New) A method according to claim 1 wherein the belt of the heated member is heated by at least one heating unit positioned in a void covered by the belt.

21. (New) A method according to claim 1 wherein the belt of the heated member is selectively heated in a region of the belt providing surface contact with the intermediate transfer member.

22. (New) A method according to claim 1 wherein the belt of the heated member is supported by three triangularly-spaced wheels.

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23. (New) A system according to claim 14 wherein the heating member further comprises at least one heating unit positioned in at least one of the at least two spaced wheels.

24. (New) A system according to claim 14 wherein the heating member further comprises at least one heating unit positioned in a void covered by the belt.

25. (New) A system according to claim 20 wherein the at least one heating unit is positioned in the void covered by the belt adjacent a region of the belt providing surface contact with the intermediate transfer member.

26. (New) A system according to claim 14 wherein the at least two spaced wheels of the heating member comprise three triangularly-spaced wheels.